DOCUMENT RESUME

ED 463 940 RC 023 497

AUTHOR	Ross, Jo-Ellen
TITLE	Water-Based Outdoor Recreation and Persons with Disabilities.
PUB DATE	2001-07-31
NOTE	17p.; In: Defining Best Practices in Boating, Fishing, and Stewardship Education; see RC 023 490.
AVAILABLE FROM	For full text: http://www.rbff.org/educational/BPE10.pdf.
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Accessibility (for Disabled); Assistive Devices (for Disabled); Attitudes toward Disabilities; Camping; *Disabilities; *Federal Legislation; Normalization (Disabilities); *Outdoor Activities; Outdoor Education; Recreational Activities; *Recreational Facilities; Rehabilitation; Swimming; Vocabulary
IDENTIFIERS	Adventure Therapy; Boating; Fishing

ABSTRACT

People with disabilities have long been hindered from participating in outdoor recreation activities such as fishing and boating because of structural and social barriers. Within the past decade, significant progress has been made toward including people with disabilities in outdoor recreation programs and improving access to related facilities and lands. Important terminology, federal legislation, and leisure studies related to people with disabilities are summarized. Using appropriate terminology conveys a sense of inclusion for programs and facilities. People-first terminology is positive and humanizing because it focuses on the person rather than the disability. Understanding and meeting legal requirements for access to programs, facilities, and services by people with disabilities will further ensure an inclusive environment. Guidelines for outdoor education and outdoor recreation programs include training staff, having a certified therapeutic recreation specialist available as a consultant, collaborating with special educators, providing support staff, including persons with disabilities on the staff, and involving persons with disabilities in the design and implementation of programs. Finally, research on people with disabilities shows they have the same motivations and educational needs as others participating in outdoor recreation activities. By using assistive devices and some additional planning, boating, fishing, and stewardship education programs can become inclusive and provide benefits to all segments of the population. Exemplary programs are identified, and research recommendations are discussed. (Contains 41 references.) (TD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 463 940

Water-based Outdoor Recreation and Persons with Disabilities

Jo-Ellen Ross
Chicago State University

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Bruce Matthews

BEST COPY AVAILABLE

RC 023497

Water-based Outdoor Recreation and Persons with Disabilities

Jo-Ellen Ross
Chicago State University

Abstract – People with disabilities have long been hindered from participating in outdoor recreation activities like fishing and boating because of structural and social barriers. Within the past decade significant progress has been made to include people with disabilities in outdoor recreation programs and improve access to related facilities and lands. This paper summarizes important terminology, legislation, and leisure involvement related to people with disabilities. Using appropriate terminology conveys a sense of inclusion for programs and facilities. Understanding and meeting legal requirements for access to programs, facilities, and services by people with disabilities will further ensure an inclusive environment. Finally, research on people with disabilities shows they have the same motivations and educational needs as others participating in outdoor recreation activities. By using assistive devices and some additional planning; boating, fishing, and stewardship education programs can become inclusive and provide benefits to all segments of the population.

Introduction

Water-based outdoor recreation is a component of our society's leisure involvement. Individuals with disabilities, however, have frequently had less opportunity to engage in water-based outdoor recreation and consequently, to benefit from such involvement. This, however, is gradually changing due in large part to the passage of federal legislation, particularly the Americans with Disabilities Act of 1990.

The world for persons with disabilities has changed significantly in the last thirty years and particularly within the last decade due to changing attitudes, legislation, technological developments, education, and opportunities. Prior to the late 1960s, persons with disabilities were frequently institutionalized or at the least kept out of the mainstream of society and cared for by society. Today, persons with disabilities are coming into the mainstream of society and becoming productive citizens in their own right. Additionally, many are taking and enjoying risks. Consequently, the world of recreation and education opportunities has changed.

Initially, recreation and education opportunities for persons with disabilities, when available, were in institutions or at least at times and place out of the mainstream of society. Next, came community-based recreation and education opportunities that were segregated; that is, programs and even at times facilities operated exclusively for persons with disabilities. Then, programs began to promote integration but in reality such programs were mainly physically integrated rather than physically and socially integrated. Within the latter decade, the move has been towards inclusive recreation and education opportunities where persons with disabilities engage in recreation and education with everyone else. The aim is to change society *from* focusing on an individual's disability *to* focusing on the individual and his/her ability and functioning, and to celebrate individual differences and diversity. Rather than trying always to change the individual with the disability or eliminate the disability, the emphasis is on providing support so individuals can engage in activities of their choosing in the community and at home according to their desires.

The purpose of this paper is two-fold: (a) to review basic information that needs to be considered in the research and design, implementation, and evaluation of water-based outdoor recreation and education programs in terms of persons with disabilities and (b) to identify "best professional practices" related to water-based outdoor recreation and education and persons with disabilities.

Terminology

Before proceeding, it is important to clarify a few key terms. The Figure 1 below highlights relevant terms and corresponding definitions.

Persons with Disabilities

According to the U.S. Department of Commerce (1997), approximately 20% of Americans (i.e., 1 out of 5) have a serious disability. Persons with disabilities are prevalent in every socioeconomic group, age group, ethnic group, religious group, and geographical area and both genders. With the aging of the population and technological advances, the number of persons with disabilities is expected to increase.

Figure 1: Relevant Terms Regarding People with Disabilities

Accessible – "Approachable, functional, and usable by persons with disabilities, independently, safely, and with dignity" (Goldman, 1991, p. 153). The same definition encompasses architectural (physical) accessibility and program accessibility. Accessible is further defined by the regulations that accompany the different laws (e.g., under the Americans with Disabilities Act, accessibility is defined by the Americans with Disabilities Accessibility Guidelines).

Assistive Technology Device -- "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capacities of individuals with disabilities" (PL 100-407: Technology-Related Assistance for Individuals with Disabilities Act, SEC. 2561 [3], 1988)

Disability -- best defined by the Americans with Disabilities Act, "the term 'disability' means, with respect to an individual – (A) a physical or mental impairment that substantially limits one or more of the major life activities of such individual; (B) a record of such an impairment; or (C) being regarded as having an impairment" (SEC. 3 [2], 1990)

Inclusion -- "is the term adopted to describe the process by which persons both with and without disabilities are being served in one environment . . . a program philosophy directed not only to the physical integration of groups of people but to embracing the needs of all within one environment" (Smith, Austin, & Kennedy, 2001, p.257). Further, Bullock and Mahon (2000) state inclusion includes "the cultivation of friendships, the development of natural supports in the community, and related things that are necessary for a person to be reciprocally and mutually accepted in, and connected to, his community" (p. 59).

Integration -- physical and social presence of persons with disabilities among persons without disabilities (Bullock and Mahon, 2000)

Normalization -- "the utilization of means which are as culturally normative as possible, in order to establish and/or maintain personal behaviours and characteristics which are as culturally normative as possible" (Wolfensberger, 1972, p. 28).

People First Terminology -- refers to the words and phrases one employs when referring to persons with disabilities so as to put the person first thereby focusing on the person rather than the disability and to do so in a positive, humanizing manner.

Qualified individual with a disability – The term . . . means an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity (ADA, SEC 201 [2])

Universal Design -- "is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (The Center for Universal Design, 2001)

Persons with disabilities represent a wide variety of conditions. The basic categories are as follows: (a) physical disability, (b) cognitive disability, (c) emotional disability, (d) social, and (e) multiple disabilities. Within each category, there is a wide variation. Persons may be considered to have a temporary, episodic, or permanent disability present at birth (congenital disability) or due to an accident or illness (acquired disability).

Persons with disabilities are people first. Some persons may consider themselves as having a disability, whereas other persons with similar conditions may not consider themselves as having a disability. The latter is true even if the individuals fit the government

Figure 2: Relevant Federal Statutes for People with Disabilities

Statue (Law)	Title	Abbreviation
PL 90-480	Architectural Barriers Act of 1968 and subsequent Amendments	ABA
PL 93-112	Rehabilitation Act of 1973 and subsequent Amendments	Rehab Act
PL 101-336	Americans with Disabilities Act of 1990	ADA
PL 100-407	Technology-Related Assistance for Individuals for Disabilities Act of 1988 and subsequent Amendments	Tech Act
PL 94-142	Education of All Handicapped Children Act of 1975 and Amendments including PL 101-476 below	EAHCA/EHA
[PL 101-476	Individuals with Disabilities Education Act of 1990 and Amendments]	IDEA
PL 105-359	Study Regarding Improved Outdoor Recreational Access For Persons with Disabilities	

definition of disability. In fact, this is part of the reason it is difficulty to obtain an accurate count of the number of persons with a disability in society today. Regardless of a person's definition of themselves, however, the key is to focus on the person first, hence "people first terminology" and their functioning, and to avoid labels.

The section on "Best Practices" later in this paper will provide more guidance on correct language in relationship to persons with disabilities. For purposes of this paper and "best practices," it is important to adhere to the U.S. government's definitions of disability.

The *2000 National Organization on Disability (N.O.D.)/Harris Survey of Americans with Disabilities* compared the lives of adults with and without disabilities on ten items indicative of quality of life. The ten items were: (1) employment, (2) income, (3) education, (4) health care, (5) transportation, (6) entertainment/going out, (7) socializing, (8) religious participation, (9) political participation/voter registration, and (10) life satisfaction. The study revealed a significant gap between Americans with disabilities and Americans without disabilities on all 10 items. The gaps, however, tended to be less for persons aged 18-29. This may be indicative of a gradual change in society for persons with disabilities. None of the 10 quality of life items directly relate to outdoor recreation and outdoor education; indirectly, however, many of them do. For example, if a person does not have access to transportation they would probably have less of an opportunity to participate in water-based outdoor recreation/education.

Legislation

This paper focuses only on federal legislation; that is federal statutes and federal regulations. Additionally, this paper will only highlight pieces of cited legislation that are relevant to outdoor recreation and outdoor education. It is recommended that readers consult the actual legislation before making any program or construction decisions. Also, it is important to note that there are additional mandates at the local and state levels.

Figure 2 identifies the key federal statutes affecting persons with disabilities in the United States today. These laws provide the foundation for an accessible, inclusive United States in terms of persons with disabilities. Each of these will be discussed below.

Architectural Barriers Act of 1968 (ABA)

The Architectural Barriers Act of 1968 was the first federal legislation passed to "ensure that buildings that are financed with federal funds are designed and constructed to be accessible to the handicapped" (PL 90-480/42 U.S.C.). In essence, ABA addressed only architectural barriers, particularly those involving persons who used wheelchairs for mobility. It did, however, pave the way for persons with disabilities to enter the mainstream of society. The Uniform Federal Accessibility Standards (UFAS) defines accessibility for buildings covered under this act. This act was responsible for the initial accessibility of public outdoor recreation and outdoor education facilities.

Rehabilitation Act of 1973 and Amendments (Rehab Act)

The Rehab Act, most recently amended in 1998, states as one of its purposes to empower individuals with disabilities to maximize employment, economic self-sufficiency, independence, and inclusion and integration into society. In terms of outdoor recreation and outdoor education, the following sections are most significant: - Section 502, Section 504, and Section 508; these sections are found within Title V: Rights and Advocacy. Additionally, there are numerous places throughout the act where recreation and recreation therapy are identified and/or could benefit by funding for initiatives. For example, recreational therapy is identified as a service under community rehabilitation program. Also, recreation and education are areas identified for the use of rehabilitation technology to remove barriers.

Section 504 is what brought prominence to this act in its original form. Section 504 is significance for being nondiscriminatory, though not civil rights, legislation. Section 504 states:

> *No otherwise qualified individual with a disability, as defined in section 7(20), shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service.*

The key to the above is the term "qualified individual with a disability" and that only reasonable accommodations need be made that do not cause undue hardship for the federal agency or the agency receiving federal funding.

Section 502 established the Architectural and Transportation Barriers Compliance Board (originally abbreviated as ATBCB; currently referred to as the "Access Board") and defined its functions. Basically, the Access Board is responsible (a) for the establishment and maintenance of accessibility standards related to the Architectural Barriers Act of 1968 and Amendments, the Americans with Disabilities Act, and other federal legislation relating to accessibility for persons with disabilities; (b) to promote accessibility for persons with disabilities in the United States; and (c) to ensure that agencies adhere to the act. Section 508, which is new with the 1998 amendment, adds the requirement of electronic and information technology accessibility to federally funded programs.

In conclusion, the Rehab Act is most significant for extending accessibility to programs and activities rather than limiting it to physical accessible thereby opening more doors for more persons with disabilities to enter the mainstream of society. Its impact, however, is limited to buildings, programs, or activities that receive federal financial assistance. This would include many federally funded water-based outdoor recreation and education opportunities such as facilities, activities, and programs offered by the National Park Service, the United States, Forrest Service, the Bureau of Land Management, and Fishing and Wildlife Service.

Americans with Disabilities Act of 1990 (ADA)

This piece of legislation has had the most far-reaching impact on society and the lives of persons with disabilities. Basically, it is the civil rights act for persons with disabilities. Its intent is to end discrimination and segregation of persons with disabilities and provide persons with disabilities equal access to society. The act consists of five sections: (1) Title I – Employment, (2) Title II -- Public Services, (3) Title III – Public Accommodations and Services Operated by Private Entities, (4) Title IV – Telecommunications, and (5) Title V – Miscellaneous Provisions. Title III is the most significant for recreation and leisure providers. It requires that public entities, regardless of ownership or funding source, be accessible to persons with disabilities with the exception of religion organizations and private clubs. In terms of recreation, leisure, and education, ADA is significant because it has the potential to greatly expand the participation of persons with disabilities in a wide array of opportunities including water-based out-

BEST COPY AVAILABLE

door recreation and outdoor education. To understand what accessible means, the government has published the ADA Accessibility Guidelines (ADAAG).

The Architectural and Transportation Barriers Compliance Board (Access Board) issue the Americans with Disabilities Act Accessibility Guidelines (ADAAG). General guidelines were first issued in 1991 and most recently amended in 1998. Amendments are anticipated in 2001. Due to the specific nature of certain facilities/activities particularly in the area of recreation, specific guidelines have been and are being created to encompass these areas. For example, in the fall of 2000 Playground Guidelines were issues and signed into law. The government has not adopted guidelines for recreation facilities that will include boating facilities and fishing piers, guidelines for outdoor developed areas that include trails and beaches, nor guidelines for passenger vessels and shore facilities that include fishing cruises. These guidelines are expected out between 2001 - 2003. Such facilities/sites still must adhere to the common items within the ADAAG (e.g., toilets, paths, parking, entrances). Hidden in Title V is "SEC 507 Federal Wilderness Areas." It calls for:

> *(a) Study. – The National Council on Disability shall conduct a study and report on the effect that wilderness designations and wilderness land management practices have on the ability of individuals with disabilities to use and enjoy the National Wilderness Preservation System as established under the Wilderness Act (16 U.S.C. 1131 et seq.).*
>
> *(c) Specific Wilderness Access. – (1) In general. Congress reaffirms that nothing in the Wilderness Act is to be construed as prohibiting the use of a wheelchair in a wilderness area by an individual whose disability requires use of a wheelchair, and consistent with the Wilderness Act no agency is required to provide any form of special treatment or accommodation, or to construct any facilities or modify any conditions of lands within a wilderness area in order to facilitate such use (16 U.S.C. 1131 et seq.).*

Additionally, Title V Sec 507 for the above purposes defines wheelchair as "a device designed solely for use by a mobility-impaired person for locomotion, that is suitable for use in an indoor pedestrian area." The related report is discussed in later sections of this paper (Involvement of Persons with Disabilities in the Outdoors and Best Practices).

The sum results of the ADA is that the vast majority of outdoor recreation and outdoor education opportunities in the United States now must be accessible, architecturally, programmatically, and technologically, to persons with disabilities. Further, persons with disabilities must have the same opportunities within the mainstream of society, as do their peers without disabilities. Although separate programs may be available to persons with disabilities, "separate but equal" is no longer tolerated as the only option or the required option. Since this act is only ten years old and it is still evolving, its impact on the leisure lifestyles of persons with disabilities as well as on the leisure lifestyles of persons without disabilities may not be fully realized yet.

Technology-Related Assistance for Individuals for Disabilities Act of 1988 and subsequent Amendments (Tech Act)

The Tech Act is most significant for its sole focus on technology and persons with disabilities. The original act provided the definition of assistive technology devices (Figure 2) that is most commonly used today and is the basis for similar definitions of assistive technology devices in other legislation. Most importantly, the act recognizes the role of technology in making it possible for persons with disabilities to be fully integrated into society. Assistive technology devices and services related to engagement in recreation, outdoor recreation, and outdoor education are indirectly included in this act. This act as amended in 1994 (PL 103-218) provides funds to states and other entities for training, demonstration projects, research, and exploration of payment options related to assistive technology for persons with disabilities that will enable them to live fuller lives. Therefore, this act has the potential of increasing opportunities for people with severe disabilities to participate in water-based outdoor recreation and education opportunities within the mainstream of society via the availability of assistive technology devices.

Education of All Handicapped Children Act of 1975 and Amendments (EAHCA/EHA) including Individuals with Disabilities Education Act of 1990 and Amendments (IDEA)

This set of laws has had a far-reaching impact on the education of all children with disabilities, ages 3-21. Basically, these laws require a "free, appropriate education" for all children with disabilities. It defines "a child with a disability" more narrowly than the way ADA or Section 504 of the Rehab Act defines "an individual with a disability." According to IDEA,

> The term 'child with a disability' means a child – (i) with mental retardation, hearing im-

> pairments (including deafness), serious emotional disturbance (hereinafter referred to as emotional disturbance), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and (ii) who, by reason thereof, needs special education and related services (20 U.S.C.).

Additionally, for children ages 3-6:

> The term 'child with a disability' for a child aged 3 through 9 may, at the discretion of the State and the local educational agency, include a child – (i) experiencing developmental delays, as defined by the State and as measured by appropriate diagnostic instruments and procedures, in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development; and (ii) who, by reason thereof, needs special education and related services. (20 U.S.C.)

The law requires that students be educated in the "least restrictive environment," which is defined as:

> IN GENERAL – To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular education environment occurs only when the nature of severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactory. (20 U.S.C.)

In essence, the law is promoting inclusion. The law also addresses physical education and recreation. Physical education is seen as a necessary part of all children's education and therefore, children with disabilities must be provided physical education like their peers without disabilities. Further, PL 94-142 defined physical education as:

> *...the development of physical and motor fitness, fundamental motor skills and patterns, and skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports). The term includes special physical education, adapted physical education, movement education, and motor development.*

Recreation, including therapeutic recreation, is considered under related services and therefore is not necessary a service provided to all students with disabilities that are covered under PL 94-142/PL 101-476. According to PL 94-142, related services are:

> ...developmental, corrective, and other supportive services may be required to assist a child with a disability to benefit from special education, and includes the early identification and assessment of disabling conditions in children.

Recreation, as identified in this law, includes (a) assessment of recreation and leisure functioning, (b) leisure education, (c) therapeutic recreation, and (d) recreation in school and community agencies.

IDEA, therefore, has the potential to have major impact on the delivery of education services that would promote water-based outdoor recreation and stewardship of the natural environment. Physical education could include such skills as fishing and boating. If a school program includes outdoor education, adventure education, environmental education, school camp, outdoor recreation skill development, or opportunities for engagement in outdoor recreation experiences, then children with disabilities would be included in these programs according to the principle of least restrictive environment. Finally, children with disabilities may receive recreation services as defined above that could provide further opportunities for the development of (a) an appreciation of the natural environment and (b) water-based recreation interests and skills.

Studies Regarding Improved Outdoor Recreational Access For Persons with Disabilities

On January 27, 1998, the above law was enacted. The law required the Secretary of Agriculture and the Secretary of the Interior shall jointly conduct a study regarding ways to improve the access for persons with disabilities to outdoor recreational opportunities (such as fishing, hunting, trapping, wildlife viewing, hiking, boating, and camping) made available to the public on the Federal lands . . . (1) National Forest Systems lands. (2) Units of the National Park System. (3) Areas in the National Wildlife Refuge System. (4) Lands administered by the Bureau of Land Management.

Obviously, the report should have a far-reaching impact on the future of water-based outdoor recreation and outdoor education for persons with disabilities. Wilderness Inquiry undertook the project and the results of the study were published in 1999 in the report entitled, *Improving Access to Outdoor Recreation Opportunities*. The report will be discussed later in this paper

(See sections entitled "Involvement of Persons with Disabilities in the Outdoors" and "Best Practices").

Involvement of Persons With Disabilities in Water-Based Outdoor Recreation and Outdoor Education

Basically, persons with disabilities engage in water-based outdoor recreation for the same purposes of the general population; (a) leisure, (b) education, and (c) therapy. The latter, though more related to persons with disabilities, is not exclusively the domain of persons with disabilities. For example, outdoor recreation including water-based outdoor education is being used with women who have been abused or have low self-esteem (e.g., Outward Bound Programs.).

Leisure Involvement

Three major studies were undertaken in the last decade by the federal government that examined in part the participation of persons with disabilities in outdoor recreation on federal lands. The studies were "The National Survey on Recreation and the Environment" by the United States Forest Service (1995), "Wilderness Accessibility for People with Disabilities" (National Council on Disability, 1992), and "Improving Access to Outdoor Recreation Opportunities on Public Lands" (Lais, 1999).

In the mid-1990s, the United States Forest Service conducted the National Survey on Recreation and the Environment (NSRE) to examine the characteristics, attitudes, and participation patterns of Americans over the age of 15 in terms of outdoor recreation. This study was the first time that respondents were asked if they had a disability. Subsequently, McCormick (2000), examined the data with a focus on persons with disabilities compared to persons without disabilities.

Of the 17,216 respondents surveyed, 1,252 persons indicated that they had a disability; 7.7% of the sample. The majority of respondents with disabilities indicated that their disability was physical in nature; that is, mobility related. The next largest group of respondents was those who indicated their disabilities as "illness" related (e.g., heart condition, diabetes, cancer). The third largest group consisted of individuals who reported their disabilities as "other" (e.g., arthritis, asthma, back problems, epilepsy, and Multiple Sclerosis). The study examined the following categories of activities: sports activities which included walking, swimming activities, outdoor recreation activities, adventure activities which included primitive camping and orienteering, watercraft activities which included water skiing and jet skiing, nature study activities, and cultural/historical activities. The results of the study indicated that first and foremost persons with disabilities engaged in all of these activities. When the rate of participation in the above activities was compared between persons with disabilities and persons without disabilities, variations were found by activity and by age. Additionally, on examining specific activities by days spent engaged in the activity, additional patterns emerged.

McCormick (2000) identified that persons with disabilities under age 25 and over age 75 participated more in outdoor swimming than their peers without disabilities. Individuals with disabilities spent more time outdoors walking than their peers without disabilities. Individuals with disabilities spent equal or more time swimming than their peers without disabilities. When swimming was divided into (a) pool swimming and (b) non-pool swimming and the sub-divisions were examined by age categories, persons without disabilities participated more frequently in non-swimming activities than their peers with disabilities. When participation rates in outdoor activities (i.e., horseback riding, cold water fishing, fresh water fishing, day hiking, organized camping) were examined, in general it was found that persons with disabilities had higher rates of participation than their peers without disabilities. Within specific activities, however, there was a variation. Persons with disabilities participated more frequently than their peers without disabilities in horseback riding, cold-water fishing, fresh water fishing, and day hiking. The data on organized camping did not clearly indicate that one group engaged in the activity more than the other group. In terms of adventure activities, with the exception of rock climbing, persons with disabilities spent more days engaged in these activities than their peers without disabilities. This, however, did vary by age groups. For example, although persons with disabilities on the whole spent more days engaging in primitive camping this changed at age 65 and then persons without disabilities spent more time in this activity. In terms of watercraft activities overall, no significant difference was found in days spent engaging in activities within this category as a whole. For specific activities, however, the number of days spent in the activity varied by whether the person had or did not have a disability. In some instances, persons with the disabilities engaged in the activity more than their peers without disabilities and in other instances they spent fewer or the same number of days in the activity as their peers without disabilities.

Title V, SEC 507 of the ADA mandated that the National Council on Disability undertake a study of persons with disabilities in terms of engagement and enjoyment of activity in National Wilderness Preservation System (NWPS) areas. Wilderness Inquiry conducted the study. The findings were published as "Wilderness Accessibility for People with Disabilities" (i.e., "Wil-

BEST COPY AVAILABLE

derness Accessibility for People with Disabilities: A Report to the President and the Congress of the United States on Section 507(a) of the Americans with Disabilities Act of 1990 December 1, 1992") and can be found via the National Council on Disability website (www.ncd.gov). The study focused on persons with disabilities involving mobility or sensory impairment. Eighty individuals with disabilities who had previous visited the NWPS areas were surveyed. In terms of assistive devices used in the wilderness, the respondents reported as follows: 50% used manual wheelchairs, 33% used crutches/cane, 16% used no assistive device, 5% used an electric wheelchair, 5% used prostheses, 4% used white cane, 1% used Amigo, and 0% used walker, and 0% used a guide dog. When asked about enjoyment, on a 5 point scale with 5 being "enjoyed a tremendous amount" and 1 being "did not enjoy," the average response was 4.42 with a response of five being given by 55% of the respondents. When respondents were asked why they visited NWPS areas, the most common reason given was "to experience scenery/natural beauty" (93%) while the least common reason given was "to enjoy fishing or hunting" (20%). The majority of persons reported entering the wilderness area by canoe (71%). This was followed next by hike (39%), kayak (29%), and raft (29%).

The PL 105-359 report (Lais, 1999) dealing with access to federal lands for outdoor recreation by persons with disabilities provides additional and more recent information about the involvement of persons with disabilities in water-based outdoor recreation pursuits. Lais found that individuals with disabilities when asked to rate their enjoyment of 16 outdoor recreation activities, rated fishing 5th and human powered boating 6th. In terms of federal land usage, persons with disabilities recreated primarily on National Park Services and National Forest Service lands.

In 2000, the U.S. Department of Interior sponsored the "Disability Rights Summit" which resulted in the paper entitled, *Beyond Awareness: Equal Opportunity for People with Disabilities in the Department of the Interior in the New Millennium.*

Outdoor Education

In light of the fact that laws pertaining to education require that education be provided children with disabilities be educated in the least restrictive environment as possible, it is important to know the impact on learning in such situations. Schleien, Hornfeldt, and McAvoy (1994) examined the impact on environmental/outdoor education when it was provided in as inclusionary situation involving elementary school children with severe developmental disabilities and children without disabilities. The majority of students in the study did not have any disability. In addition, outside this program the students were not educated together. The study demonstrated that the students without the disabilities within an inclusive environmental/outdoor education program learned the food chain concepts being taught in the program. The program included an indoor presentation, demonstrations, and an outdoor educational hike with a naturalist. A variety of techniques were employed to support the children with disabilities: companionship training, cooperative learning, and trainer advocates. Companionship training involved providing the students without the disabilities information on interacting with students with severe developmental disabilities prior to the inclusive outdoor education experience. The students with disabilities' special education teachers functioned as trainer advocates; that is, they provided the companionship training, assisted with the management of the children with disabilities during the program, and assisted the leader of the program, the naturalist, as appropriate. Additionally, a Certified Therapeutic Recreation Specialist (CTRS) prepared the naturalists for the program prior to its initiation.

Organized Camps

Organized camps combine leisure and education. As defined by the American Camping Association (1998), organized camping is:

> A sustained experience which provides a creative, recreational and educational opportunity in group living in the out-of-doors. It utilizes trained leadership and the resources of the natural surroundings to contribute to each camper's mental, physical, social, and spiritual growth. (p.3)

Primarily within the last decade, organized camps have begun to model the school systems and provide inclusive and integrated camping experiences for youngsters with disabilities. Between 1993-1996, the American Camping Association engaged in a study on the impact of residential camp on campers with disabilities; National Camp Evaluation Project (Brannan, Arick, and Fullerton 2001). The study consisted of 2,184 male and female campers, ages 7-21, who had a wide variety of disabilities. They attended one-week summer camp sessions and were enrolled in special education programs. Brannan, Arick, and Fullerton found that among other things the campers made gains in the areas of natural/environment, boating, and swimming. Fishing was not cited. Additionally, campers gained in a variety of psychosocial areas and independence.

Between 1997-2000, the American Camping Association in collaboration with the Institute for Career and Leisure Development engaged in another study that explored the benefits of camping for children with disabilities and without disabilities in inclusionary camps (Brannan, 2000). Entitled "National Inclusive Camp Practices," the study focused on inclusive camp programs. The study was done in phases and involved camps across the country.

Therapy

The outdoor environment particularly through adventure programming has provided an arena for therapy for persons with disabilities. Some of these programs have utilized water-based outdoor recreation activities as part of their modality. It should be made clear, however, that not all persons with disabilities are in need of therapy.

Kelley (1993) undertook a review of literature related to outdoor adventure therapy and adults with mental illness. Many of these programs utilized some form of water-based outdoor recreation component (e.g., canoeing, rafting) in their treatment program. She concluded that:

> No methodologically adequate studies of the effects of outdoor adventure, using psychometrically adequate measurements, appropriate control group comparisons, and appropriate statistical analyses and presentation of data, which have involved representative groups of chronically mentally ill adults, who most often have diagnoses of schizophrenia or major affective disorders. (p. 120)

She did, however, find that both positive and negative effects have been documented regarding the use of outdoor adventure therapy with this population.

Another closely related area is wilderness adventure therapy. This has received much attention from the media in recent years, particularly in terms of adolescents. Davis-Berman, Berman and Capone (1994) surveyed 31 mental health therapeutic wilderness programs. The programs were identified via membership in the Association for Experiential Education. In terms of activities, the researchers found that approximately two-thirds of the programs involved water-based outdoor recreation activities (e.g., canoeing, fishing, rafting). The target populations for these programs were high-risk teenagers with either a history or a potential of a psychiatric diagnosis. Davis-Berman, Berman, & Capone discovered much diversity in programs, a lack of specifics regarding the program, and the omission of program and outcome evaluation. Additionally, the researchers had difficulty deciphering whether a program was therapy or therapeutic.

Weston, Tinley, and O'Dell (1999) also examined the literature on this topic in terms of such programs for adolescents-at-risk. Their results are similar to findings of Kelley (1993) and Davis-Berman, Berman, & Capone (1994); that is, there is a lack of quality evaluation and rigorous research and reporting related to this area. Without such, no conclusions can be made regarding the outcomes (benefits) of these types of programs. It should be noted that none of the studies identified the impact of this type of programming on the participants' current or later leisure lifestyle or even noted if this was explored.

Physical rehabilitation programs, however, have tended to incorporate outdoor recreation skill development into their outdoor therapy programs. Three examples are Craig Rehabilitation Institute (Denver, CO), Shake-A-Leg (Newport, RI), and Shepherd Rehabilitation Center (Atlanta, GA). No research, however, was found related to the outcomes of these programs for the participants.

Benefits of Outdoor Experiences on Fishing, Boating, and Stewardship

The vast majority of outdoor recreation, outdoor education, camping, and therapy programs involving persons with disabilities reported results related to gains in psychosocial areas such as self-esteem and friendship as well as gains in independence. Only a few studies, however, examined the relationship of these types of programs for persons with disabilities in either segregated or inclusive settings on leisure lifestyle, leisure skills, or stewardship of the natural environment. The studies affiliated with the American Camping Association did address these issues (Brannan, ?; Brannan et al ?). Brannan and his associates found that in addition to psychosocial development, campers with disabilities gained boating skills and appreciation of the natural environment as a result of their participation in organized camp programs.

McAvoy et al (1989) discovered that wilderness programs that included persons with and without disabilities resulted in gains for all participants in the areas of environmental appreciation, psychosocial development, and recreation skills and patterns. Anderson, Schleien, McAvoy, Lais and Seligmann (1997) found that inclusive outdoor adventure experiences centering around wilderness canoe trips resulted in a significant increase in canoeing skills, particularly for persons with disabilities. Additionally, the researchers found that par-

ticipants gained in outdoor skills and experienced psychosocial growth.

McCormick (2000) in examining the NSRE data found that individuals with disabilities who had engaged in activity in the National Wilderness Preservation System (NWPS) more strongly supported less accessible accommodations and preservation of the environment in NWPS compared to individuals with disabilities that had not engaged in activity in the NWPS. This may be interpreted to mean that one benefit of participation in wilderness activity is a desire to preserve the area.

Constraints to Participation

Constraints to involvement in activity and the community, in general and in outdoor recreation in particular, for persons with disabilities tend to involve attitudes and resources. Attitudes can be defined as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Ajzen, 1975, p.15). Attitudinal barriers for persons with disabilities in terms of leisure participation include their own attitudes as well as attitudes of the significant others, the community or society at large, and the providers (Ross, 1993). Resources include finances, transportation, assistance or support of another person, leisure partner, knowledge and skills, and functioning.

Germ and Schleien (1997) examined constraints to leisure participation for persons within the context of community leisure agencies. Consumers (i.e., persons with disabilities) identified transportation and program issues as barriers to participation. Program barriers included the lack of inclusive programs for adult males and teenagers with disabilities, the lack of a variety of program times, and the lack of skill development programs at the appropriate level.

Ross (1993) found that for young adults with recent spinal cord injuries transportation, lack of a leisure partner, mobility, self-consciousness, and attitudes of significant others were barriers to outdoor recreation pursuits. Wilhite and Keller (1992) examined the leisure involvement of older adults with developmental disabilities. Leisure constraints reported by these adults included money, transportation, physical accessibility, concerns about their behavior, and discomfort in large public groups. Additionally, some of the respondents "who perceived that they were not integrated, felt community members were not sensitive to their needs nor willing to allow them to be integrated into community life and activities" (p.25).

McCormick (2000) found on analyzing the NSRE study that persons with disabilities identified more barriers to outdoor recreation on U.S. Forest land than persons without disabilities. The primary barriers to outdoor recreation participation for persons with disabilities revolved around health and physical functioning. Further, these barriers were cited by over 50% of the respondents with disabilities. Lais (1999), focusing more specifically on barriers to fishing on federal lands reported, based on participants' responses, that the barriers were: "eroded or heavily vegetated fishing banks, or docks and piers that are too narrow, have steps, or are in disrepair" (p. 29).

Best Practices

Accessibility

Accessibility is defined by federal, state, and local legislation/codes. In terms of the outdoor environment, standards currently exist regarding facilities (e.g., bathrooms, education centers) but few standards apply to the natural environment. Such standards are, however, in the process of being adopted. The major question though is how accessible should the natural environment be for persons with disabilities. The US Forest Service in their study entitled "National Survey on Recreation and the Environment" (NSRE) attempted to explore this question in terms of federal land. McCormick (2000) in his analysis of the data found conflicting views. On one hand, individuals with disabilities voiced acceptance of less accessibility within more primitive environments and for preservation of the wilderness, yet they also indicated a desire for modifications, including environmental modifications, to accommodate people with disabilities.

Inclusion

A number of studies have recently examined means towards inclusion. A few were reviewed above under "Involvement of Persons with Disabilities in Water-Based Outdoor Recreation and Outdoor Education." Modell and Imwold (1998) examined parental attitudes regarding inclusive recreation programs involving children with and without mental retardation. Parents identified the following benefits of such programs: normalization, communication, learning about diversity, social interaction, friendships, and socialization. Parents also identified the following attitudinal barriers and programmatic barriers: "safety, lack of programs, age-appropriateness, lack of acceptance, and ignorance" (p. 92).

Klingner and Vaughn (1999) examined 20 research studies regarding the inclusion of students with learning

BEST COPY AVAILABLE

Figure 3: Dehumanizing Language vs. Humanizing Language

Do not use	Use
The person who is crazy.	The person with mental illness.
The person who is wheelchair bound	The person who uses a wheelchair
The person who is confined to a wheelchair	The person who uses a wheelchair
The deformed person	The person with a physical impairment
The cripple	The person with a physical impairment
The blind	The person who is blind
The retarded	The person with mental retardation
The person who is a stroke victim	The person who had a stroke
Deaf and dumb/mute	The person who is deaf and does not speak

disabilities into the general education classroom, grades kindergarten through 12. They focused on the students', both those with and without disabilities, perceptions regarding classroom practices. Klingner and Vaughn concluded that students preferred help from the teacher, active learning situations, and working in pairs or groups. Specifically, in terms of teacher behavior the following was identified as helpful: "(a) explains lessons carefully, (b) helps with math or reading, (c) gives extra time for work, (d) provides student choices, (e) includes opportunities for interpersonal social interactions, (f) provides opportunities for creative expression, (g) includes format variety, and (h) provides for optimal challenge" (p. 29). Students did not like it when "teachers are inconsistent, spend too much time on classroom management [behavior management], and give negative feedback" (p. 31). Further, the students wanted all students to be treated the same yet accepted recognized individual learning differences/styles. Additionally, students "did not perceive instructional adaptations and accommodations to meet the special needs of selected students as problematic" (p. 30).

Snyder (1999) explored the attitudes and concerns of general educators in terms of inclusion. Basically, she found that the teachers did not feel supported by the administration, that they were not offered the necessary training, and that there needed to be more collaboration between general education teachers and special education teachers. Daane, Beirne-Smith, and Latham (2000) and Smith (2000) reported comparable findings. Similarly, Bogle (1996) explored inclusion in Canadian camps and concluded that counselor training was the key to successful inclusion.

Fisher, Sax, Rodifer, and Pumpian (1999) examined the perceptions of general secondary educators towards inclusion in a school that had had at least 4 years of experience in inclusive education, included students with severe disabilities in inclusion, and was ethnically diversified. They found that the teachers reported positive impact of inclusion on themselves as well as on the students without disabilities and the classroom climate. Basically, the general educators made the following recommendations for successful inclusion: (1) "ongoing interactions and contact with special education teachers and staff" and (2) "use of peer support strategies," (3) "curriculum adaptations and information about the students with disabilities" (p. 262). The teachers, however, did indicate a desire for more support from peer tutors, aides, or special education teachers; concern about not enough work for the students with disabilities; and disruptive behavior from both students with and without disabilities.

Bennett, Deluca, and Bruns (1997) studied what components lead to "successful inclusion" from the perspective of parents and teachers. The following factors were identified in making inclusion work: commitment by the teachers, administrators, and parents; teacher qualities including flexibility, "open-mindedness, a sense of humor, and an ability to communicate with other adults" (p. 125); teachers' attitudes; and the availability of resources (e.g., planning time, support staff).

Guidelines

Best practices must first demonstrate respect for and maintain the dignity of all individuals including the persons with disabilities. This is partially accomplished by the use of people-first language and principles of inclusion and normalization. Means for this are outlined in Figures 3, 4, and 5.

Figure 4: People First Language

Person with a disability
Individual who uses a wheelchair for mobility
Person who has a vision impairment

Figure 5: Principles of Inclusion

- Celebrates diversity
- Respects differences
- Interdependence
- Participation and cooperation
- Supportive relationships
- Friendships
- More than integration and accessibility

For additional guidelines relating to language and persons with disabilities, one is referred to the "Guidelines for Reporting and Writing about People with Disabilities" (5th ed.) written and published by Media Project, Research and Training Center on Independent Living , University of Kansas.

Secondly, best practices must conform to appropriate legislation. Basically, that means that programs and facilities should be inclusive and accessible, facilities should employ universal design, and assistive technology devices should be available whenever possible. In terms of fishing, Lais (1999) specifically recommended the following:

- All fishing piers and structures comply with the recommendations currently being advanced by the federal Access Board.
- On advertised bank fishing locations, secondary undergrowth at key access locations should be cleared to allow access to the fishing opportunities to persons with mobility impairments, unless this clearing would diminish the resource due to erosion or the removal of rare or endangered species, or fundamentally alter the natural environment or recreational experience of the setting. (p.19).

In terms of boating, he recommended that "access and assure that all docks and piers comply with the recent additions to the ADAAG standards put forward by the Access Board" (p. 21).

Lais also indicated a need to "clarify the balance between resource protection and accessibility" (p. 5). Finally, he stated that:

> Although popular with many people, it is recommended that federal land management agencies promote special treatment of persons with disabilities only as a last resort when such treatment is truly required to provide equal opportunity. In other words, special treatment should be used only when it is proven impossible to integrate people with disabilities into existing programs for the general public. (p. 23)

Finally, in terms of outdoor education and outdoor recreation programs, the following guidelines are offered:

1. Provide pre-training and continual training to staff.
2. Consider having a CTRS (Certified Therapeutic Recreation Specialist) available as a consultant.
3. Collaborate with special educators.
4. Have students work in pairs and small groups.
5. Use a variety of active teaching methods.
6. Make accommodations and adaptations as necessary.
7. Provide instructors with support staff.
8. Include accessibility information in all marketing and informational material and be sure that such materials are written positively and available in an accessible format to persons with disabilities.
9. Provide sensitivity and awareness training to staff and participants that includes information related to persons with disabilities, disabilities, interacting with persons with disabilities, and diversity.
10. Staff should include persons with disabilities.
11. Involve persons with disabilities in the design and implementation of programs.
12. Support persons including sign language interpreters and personal care attendants should be available and if accompanying the participant, not be charged.

Exemplary Programs

There are a number of programs in operation today that demonstrate the above guidelines. At this point, only a few will be noted. The resource list contains some others. In terms of inclusion programming, Wilderness Inquiry based out of Minneapolis, MN comes to the forefront. It is a non-profit program that aims to provide outdoor adventure activity to persons with and

without disabilities within a single program. Diversity, interdependence, and environmental preservation are its cornerstone. It provides a variety of outdoor recreation adventures (trips) for persons of all ages and all abilities.

The Commonwealth of Massachusetts Department of Environmental Management that oversees the Massachusetts State Forest and Parks system initiated the Universal Access Program a few years ago. The program uses people first terminology in all its publications, provides sign language interpreters and other support personal for its programs, and offers a variety of assistive technology equipment so that individuals with disabilities may full engage in outdoor pursuits at the parks. Publications are offered in a variety of mediums including on audiotapes. Hiking trails are in two varieties; "accessible trails" which met universal accessibility standards and "accessed trails" which are more rugged. Also, a wide variety of outdoor recreation skill instruction is available in such activities as sea kayaking, rowing, cross-country skiing, and ice skating. Finally, a major effort has been made in making the parks facilities accessible including camping and picnicking areas, fishing piers, and beach areas.

A relative new comer is the Access Nature Project, that is a joint program between the National Wildlife Foundation and Easter Seals Virginia. It is funded by a federal grant. The program, still in the developmental stages, is intended to provide inclusive outdoor education that facilitates the acquisition of outdoor skills, environmental awareness, and leadership. If successful, this program should complement the objectives of the Boating and Fishing Foundation.

Conclusions and Recommendations for Research

There is a lack of research available concerning methods of providing individuals with disabilities with water-based outdoor recreation and outdoor education experiences that facilitate the development of lifelong interests and skills as well as an attitude of stewardship for natural water areas. Legislation, however, directs the provision of such leisure and educational opportunities. It is unclear what the (a) relationship is among outdoor education, outdoor recreation, and stewardship; (b) what the best context and methods are for providing outdoor education and outdoor education experiences for persons with disabilities especially that would facilitate development of fishing and boating skills and stewardship of the water-based outdoor environment. Specifically, the following recommendations are made for research:

1. Explore the efficacy of inclusive water-based outdoor recreation experiences in promoting stewardship of the water-based outdoor environment for persons with disabilities.
2. Explore if there is a minimum depth of experience that is necessary to enable stewardship to develop for persons with disabilities.
3. Explore if there is a minimum level of outdoor recreation skills persons with disabilities must obtain to incorporate fishing and boating into their leisure lifestyle.
4. Explore the relationship between water-based leisure involvement, functioning in terms of disability,
5. Explore the relationship of the instructor/recreation leader's attitude towards inclusion and persons with disabilities on the participants' acquisition of recreation skills, interests, and attitudes related to the natural water-based outdoor environment.
6. Explore if there is a relationship between modified of the environment for accessibility and attitude towards preservation of natural resources.
7. Explore techniques for enabling all persons to gain the most enjoyment and skills in water-based outdoor recreation.
8. Further explore constraints to water-based outdoor recreation and outdoor education for persons with disabilities.
9. Explore the role of virtual reality in developing water-based outdoor recreation skills as well as stewardship.

References

American Camping Association. 1998. Accreditation standards for camp programs and services. Martinsville, IN: author.

Anderson, L., Schleien, S.J., McAvoy, L., Lais, G., and D. Seligmann. 1997. Creating positive change through an integrated outdoor adventure program. Therapeutic Recreation Jounal, 21 (4), 214-229.

Bennett, T., Deluca, D., and D. Bruns. 1997. Putting inclusion into practice: Perspectives of teachers and parents. Exceptional Children, 64 (1), 115-132.

Bogle, C. 1996. Attitudes of camp counselors and camp directors toward integration practices at summer camp. Journal of Leisurability, 23 (2) 32-39.

Brannan, S. 2001. American Camping Association (ACA) co-sponsors first nationwide study of inclusive outdoor programs. http://www.acacamps.org/-research/nicp.htm.

Brannan, S., Arick, J. and A. Fullerton. 2001. Research Brief #2: The impact of residential camp programs on campers with disabilities Nation Camp Evaluation Project (NCEP): 1993-96. http://www.indiana.edu/~bradwood/ncep/resbr2.html.

Bullock, C.C. and M.J. Mahon. 2000. Introduction to Recreation Services for People with Disabilities: A Person-Centered Approach (2nd ed.). Champaign, IL: Sagamore.

The Center for Universal Design. 2001. What is Universal Design? http://www.design.ncsu.edu/cud/univ-design/ud.htm.

Davis-Berman, J., Berman, D.S. and L. Capone. 1994. Therapeutic wilderness programs: A national survey. Journal of Experiential Education, 17 (2), 49-30.

Daane, C.J., Beirne-Smith, M., and D. Latham. 2000. Administrators' and teachers' perceptions of the collaborative efforts of inclusion in the elementary grades. Education, 121 (2), 331-338.

Fishbein, M. and I. Ajzen. 1975. Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

Fisher, D., Sax, C., Rodifer, K., and I. Pumpian. 1999. Teachers' perspectives of curriculum and climate changes: Benefits of inclusive education. Journal for a Just and Caring Education, 5 (3), 256-268.

Germ, P.A. and S.J. Schleien. 1997. Inclusive community leisure services: Responsibilities of key players. Therapeutic Recreation Journal, 31(1), 22-37.

Goldman, C.D. 1991. Disability Rights Guide: Practical Solutions to Problems Affecting People with Disabilities (2nd ed). Lincoln, NE: Media.

Kelly, M. P. 1993. The therapeutic potential of outdoor adventure: A review, with a focus on adults with mental illness. Therapeutic Recreation Journal, 27(2), 110-125.

Klingner, J.K. and S. Vaughn. 1999. Students' perceptions of instruction for inclusion classrooms: Implications for students with learning disabilities. Exceptional Children, 66 (1), 23-37.

McCormick, B.P. 2000. Outdoor recreation pursuits of people with disabilities: A research report. Recreation and Park Administration, Indiana University.

Media Project, Research and Training Center on Independent Living. 1996. Guidelines for Reporting and Writing About People with Disabilities (5th ed.). Lawrence, KS: University of Kansas.

Modell, S.J. and C.H. Imwold. 1998. Parental attitudes toward inclusive recreation and leisure: A qualitative analysis. Parks & Recreation, 33 (5), 88-93.

National Council on Disability. 1992. Wilderness accessibility for people with disabilities. U.S. Government Printing Office.

PL 90-480: The Architectural Barriers Act of 1968

PL 93-112: Rehabilitation Act of 1973.

PL 101-476: Individuals with Disabilities Education Act of 1990.

PL 100-407: Technology-Related Assistance for Individuals with Disabilities Act, Sec. 2561 [3], 1988 (Tech Act)

PL 101-336: Americans with Disabilities Act of 1990.

PL 100-407: Technology-Related Assistance for the Individuals with Disabilities Act of 1988.

PL 103-218: Technology-Related Assistance for the Individuals with Disabilities Act of 1988, Amendments 1994.

PL 105-359: Study Regarding Improved Outdoor Recreational Access for Persons with Disabilities.

Ross, J. 1993. Young adults with recent spinal cord injuries: Transition from rehabilitation hospital to community living. Dissertation Abstracts.

Schleien, S.J., Hornfeldt, D.A., and L.H. McAvoy. 1994. Integration and environmental-outdoor education: The impact of integrating students with severe developmental disabilities on academic performance of peers without disabilities. Therapeutic Recreation Journal, 28(1), 25-33.

Smith, M. G. 2000. Secondary teachers' perceptions toward inclusion of students with severe disabilities. National Association of Secondary School Principals, NASSP Bulletin, 84 (613), 54-60.

Smith, R.W., Austin, D.R., and D.W. Kennedy. 2001. Inclusive and Special Recreation: Opportunities for Persons with Disabilities (4th ed.). Boston: McGraw-Hill.

Synder, R.F. 1999. Inclusion: A qualitative study of in-service general education teachers' attitudes and concerns. Education, 120 (1), 173-180.

U.S. Architectural and Transportation Barriers Compliance Board. 1991. Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities. Federal Register, 56 (173), Friday, September 6, 1991, Rules and Regulations.

U.S. Department of Commerce (1997). Census Brief.

U.S. Department of Interior. 2000. Beyond awareness: Equal opportunity for people with disabilities in the Department of the Interior in the new millennium. U.S. Government Printing Office.

United States Forest Service. 1995. The national survey on recreation and the environment.

United States Justice Department. 1994. 28 CFR Part 36: Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities.

BEST COPY AVAILABLE

Weston, R, Tinsley, H.E.A., and I. O'Dell. 1999. Wilderness adventure therapy for at-risk youth. Parks & Recreation, 34(7), 10-20.

Wilhite, B. and M.J. Keller. 1992. The role of therapeutic recreation in community involvement: Patterns and perceptions of older adults with developmental disabilities. Annual in Therapeutic Recreation, 3, 18-32.

Wolfensberger, R. 1972. The Principle of Normalization in Human Services. Toronto, Ontario, Canada: National Institute of Mental Retardation.